

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1-26. (Canceled)

27. (Currently Amended) A method of converting a frame of digital video data from a first format to a second format, comprising the steps of: ~~The method of claim 26,~~ obtaining digital coefficient information representing pixel information of a first frame in a first format; and determining a motion vector representing the difference between a first frame in a second format and a second frame in the second format based on the digital coefficient information, wherein the first frame in the second format corresponds to the first frame in the first format,

wherein the step of determining a motion vector comprises the steps of:

obtaining at least one integral projection array based on a the current block using a one-dimensional inverse discrete cosine transform;

obtaining at least one integral projection array based on a the first set of candidate blocks using a one-dimensional inverse discrete cosine transform; and

calculating a difference value between the current block and the first set of candidate blocks using the integral projections and a predetermined difference criterion.

28. (Canceled).

29. (Currently amended) A The system for converting a frame of digital video data from a first format to a second format comprising: of claim 28,  
means for obtaining a digital coefficient information representing pixel information of a first frame in a first format; and  
means for determining a motion vector representing the difference between a first frame in a second format and a second frame in the second format based on the digital coefficient information, wherein the first frame in the second format corresponds to the first frame in the first format;

wherein the means for determining a motion vector comprises:

means for obtaining at least one integral projection array based on a the current block using a one-dimensional inverse discrete cosine transform;

means for obtaining at least one integral projection array based on a the first set of candidate blocks using a one-dimensional inverse discrete cosine transform;  
and

means for calculating a difference value between the current block and the first set of candidate blocks using the integral projections and a predetermined difference criterion.